REMARKS

In this paper, the Applicant has:

- amended the description and drawings for clarity; and
- amended claims 1, 10, 12, 13 and 14.

The Applicant submits that these amendments are completely supported by the application as filed and add no new matter.

Claims 1-19 are pending after this amendment.

Claims 1, 7 and 8

The Office Action raises US patent No. 5,740,075 (Bigham et al.) in connection with claims 1, 7 and 8. The Applicant submits that claims 1, 7 and 8 patentably distinguish Bigham et al.

As understood by the Applicant, Bigham et al. disclose an access subnetwork which provides broadcast access transport and selective allocation of resources for interactive communications sessions dedicated to individual end users. The access subnetwork has specified broadcast and interactive service interfaces for communication to and from an information provider and for communication to and from customer premises equipment. An Access Subnetwork Controller reserves and enables access subnetwork resources for a particular user connection and reports connections back to higher level control elements.

Claim 1 (as amended) recites "a plurality of application objects, *each application object having a one to one correspondence with an application* available on a data communication network and each application object specifying a network connection point for the corresponding application." Bigham et al. fail to disclose this claim 1 feature.

The Examiner expresses the view that Bigham et al. disclose the claim 1 "application objects" at col. 12, ln. 49-58; col. 13, ln. 47-67; and col. 14, ln. 27-32. The Applicant submits that none of the cited passages disclose the features of the claim 1 "application objects".

At col. 12, ln, 49-58, Bigham et al. describe an "authorization management application submodule" (see also Figure 2), which is described as providing a generic

authorization control capability that can be re-used "*across different ones of the services applications*". This contrasts directly with the claim 1 application objects which are each recited to have "*a one to one correspondence with an application*".

Col. 13, ln. 47-67 of Bigham et al. describes a "connection management application module" (see also Figure 2). This passage from Bigham et al. specifically states that the connection management application module also has access to addresses of the network interface points of *all of the video information provider (VIP) servers* and each users digital entertainment terminal (DET) (see col. 13, ln. 47-49). The Bigham et al. connection management application module contrasts directly with the claim 1 application objects which are each recited to have "*a one to one correspondence with an application*" and which each specify "*a network connection point for the corresponding application*".

At col 14, ln. 27-32, Bigham et al. describe "access subnetwork management applications". These access subnetwork management applications run on a local controller (the "Access Subnetwork Controller"). The Access Subnetwork Controller is different from the "level 1 gateway 19" on which the Bigham et al. "authorization management application submodule" and "connection management application module" are run. Col. 14, ln. 27-32 describe that the access subnetwork management applications respond to requests from the level 1 gateway 19 to establish communications through the access subnetwork 15_2 (see Figure 1). The specific task performed by the access subnetwork management applications are described at col. 14, ln. 33-67. None of these aspects of the Bigham et al. access subnetwork management applications disclose or suggest the features of the claim 1 "application objects".

In addition to the deficiencies of the passages cited by the Examiner, Bigham et al. describe a system wherein a subscriber (video information user (VIU)) can interact with a particular video information provider (VIP) to request services from the VIP. Bigham et al. teaches that each VIP has an associated server (see col. 9, 17-20) and that a subscriber (VIU) can receive more than one service from a particular VIP (see col. 9, ln, 60-63 and col. 12, ln. 42-48). Accordingly, the Bigham et al. VIPs are not analogous to the claim 1 "application objects" which are recited to each have "*a one to one correspondence with an application* available on a data communication network" and to specify "a network connection point for the corresponding application".

Based on this reasoning, the Applicant respectfully submits that claim 1 patentably distinguishes Bigham et al. Claims 7 and 8 depend from claim 1 and are submitted to be patentable over Bigham et al. for at least this reason.

Claims 2 and 3

The Office Action raises the combination of Bigham et al. and US patent No. 6,986,157 (Fijolek et al.) in connection with claims 2 and 3. The Applicant respectfully submits that claims 2 and 3 patentably distinguish the combination of Bigham et al. and Fijolek et al.

As understood by the Applicant, Fijolek et al. describe a method and system for dynamic service registration, activation and deactivation on a data-over-cable system. A first network device (e.g. a cable modem) sends a first message to another network device. The first message includes multiple service parameters for a desired service which are extracted from the first message and used to create a service session profile. The service session profile is used to provide the desired service.

Claims 2 and 3 depend from claim 1. As discussed above, Bigham et al. does not teach or suggest the claim 1 feature of "application objects" which each have "a one to one correspondence with an application available on a data communication network" and which each specify "a network connection point for the corresponding application". Fijolek at al. fail to remedy this deficiency. More specifically, Fijolek et al. do not disclose a plurality of "application objects" having the features recited in claim 1.

In addition, claim 2 recites that "the application objects each contain information specifying a quality of service level for the communication channel". As correctly pointed out by the Examiner on page 4 of the Office Action, Bigham et al. do not disclose a quality of service level. The Examiner expresses the view that Fijolek et al. describe a management system having this claim 2 feature. The Applicant respectfully submits that the Examiner has misconstrued this aspect of the Fijolek et al. disclosure.

The Examiner alleges that Fijolek et al. disclose the features of claim 2 at col. 33, ln. 58-67 and col. 34, ln. 1-10. While these passages from Fijolek et al. describe "multiple service parameters" that include "Quality of Service", Fijolek et al. specifically disclose that *these service parameters are included in messages sent between network devices.* The Applicant points out that these service parameters are *not* contained in *"application objects"* as recited in claim 2 (see col. 33, ln. 32 of Fijolek et al., which states "[t]he first message includes multiple service parameters"). These "first messages" taught by Fijolek et al. cannot be the claim 1 "application objects" because these first messages do not each have "a one to one correspondence with an application available on a data communication

network" and do not each specify "a network connection point for the corresponding application". Fijolek et al. depict a registration message in Figure 19 (see also col. 34, ln. 17-36). None of the fields shown in the Figure 19 message appear to have a one to one correspondence with an application or to specify a network connection point for such an application.

Fijolek et al. disclose that the service parameters contained in the first message are extracted and used to form a "service session profile". The Applicant submits that the Fijolek et al. service session profile cannot be the claim 1 "application objects" because the service session profile does not specify a network connection point for a corresponding application as recited in claim 1. Fijolek et al. describe the content of a service session profile at col. 34, ln. 36-55. Nowhere in this description do Fijolek et al. suggest that a service session profile specifies a network connection point that corresponds to a particular application.

Based on this reasoning, the Applicant respectfully submits that claim 2 patentably distinguishes the combination of Bigham et al. and Fijolek et al. Claim 3 depends from claim 2 and is submitted to be patentable over the combination of Bigham et al. and Fijolek et al. for at least this reason.

Claims 4-6 and 9

The Office Action raises the combination of Bigham et al., Fijolek et al. and US patent No. 6,377,982 (Rai et al.) in connection with claims 4-6 and 9. The Applicant submits that claims 4-6 and 9 patentably distinguish the combination of Bigham et al., Fijolek et al. and Rai et al.

As understood, Rai et al. disclose a data network, including a home network and a foreign network, with an accounting system. The foreign network includes a base station with an access hub (which itself includes a serving accounting collection module) and a foreign mobile switching center (which itself includes a serving registration server). The home network includes a home mobile switching center having a home accounting collection module. An end system (i.e. a subscriber to the data network) is coupleable to the foreign access hub. The home and serving accounting collection modules collect accounting data on message traffic transported between the end system and a communication server.

Claims 4-6 and 9 depend from claim 1. As discussed above, neither Bigham et al. nor Fijolek et al. disclose or suggest the claim 1 feature of "a plurality of application objects, each application object having a one to one correspondence with an application available on a data communication network and each application object specifying a network connection point for the corresponding application." Rai et al. fail to remedy this defficiency. Based on this reasoning, claims 4-6 and 9 are submitted to patentably distinguish the combination of Bigham et al., Fijolek et al. and Rai et al.

In addition, claim 5 recites a "user interface providing a control whereby *the subscriber may change the status* of any of one or more subscriptions of that subscriber from enabled to disabled or from disabled to enabled." The Applicant submits that none of the cited references disclose or suggest such a feature. The Examiner correctly states (on page 5 of the Office Action) that neither Bigham et al. nor Fijolek et al. disclose the use of an enable/disable status to connect/disconnect a communication channel. The Examiner goes on to express the view that the features of claim 5 are shown by Rai et al. at col. 33, ln. 17-18. However, this passage from Rai et al. states "Service Enable/Disable Flag. This field may be set to disabled *by the system administrator* to disable service to a subscriber." This passage from Rai et al. discloses that a system administrator may use a flag to disable service to a subscriber, but this passage does not disclose the claim 5 feature that *"the subscriber may change the status* of any of one or more subscriptions of that subscriber from enabled to disabled or from disabled to enabled."

For this reason, claim 5 (and claim 9 which depends from claim 5) are submitted to further distinguish the combination of Bigham et al., Fijolek et al. and Rai et al.

Claims 10, 11 and 18

The Office Action raises Bigham et al. in connection with claims 10, 11 and 18. The Applicant submits that claims 10, 11 and 18 patentably distinguish Bigham et al.

Claim 10 (as amended) recites "application information identifying one or more applications available to the subscriber, the application information comprising one or more application objects, *each application object having a one to one correspondence with a particular one of the one or more applications and each application object specifying a network connection point for the particular application.*" As discussed above (see discussion of claim 1), Bigham et al. fail to disclose "application objects" having these features recited in claim 10.

Accordingly, the Applicant submits that claim 10 patentably distinguishes Bigham et al. Claims 11 and 18 depend from claim 10 and are submitted to be patentable over Bigham et al. for at least this reason.

Claims 12-13

The Office Action raises the combination of Bigham et al. and Fijolek et al. in connection with claims 12 and 13. The Applicant submits that claims 12 and 13 patentably distinguish the combination of Bigham et al. and Fijolek et al.

Claims 12 and 13 depend from claim 10. As discussed above, Bigham et al. does not disclose the claim 10 feature of "application information identifying one or more applications available to the subscriber, the application information comprising one or more application objects, *each application object having a one to one correspondence with a particular one of the one or more applications and each application object specifying a network connection point for the particular application.*" Fijolek et al. fail to remedy this deficiency. Accordingly, the Applicant submits that claims 12 and 13 patentably distinguish the combination of Bigham et al. and Fijolek et al.

In addition, claim 12 recites "wherein *the application object corresponding to the selected application comprises information specifying a quality of service level.*" As discussed above in relation to claim 2, to the extent that Fijolek et al. describe quality of service parameters, such parameters are included *in messages sent between network devices and are not contained in "application objects*" as recited in claim 12. For this reason, claim 12 (and claim 13 which depends from claim 12) are submitted to further distinguish the combination of Bigham et al. and Fijolek et al.

Claims 14-17

The Examiner has raised the combination of Bigham et al., Fijolek et al. and Rai et al. in connection with claims 14-17. The Applicant submits that claims 14-17 patentably distinguish the combination of Bigham et al., Fijolek et al. and Rai et al.

Claims 14-17 depend from claim 10. As discussed above, Bigham et al. does not disclose the claim 10 feature of "application information identifying one or more applications available to the subscriber, the application information comprising one or more

application objects, *each application object having a one to one correspondence with a particular one of the one or more applications and each application object specifying a network connection point for the particular application.*" Neither Fijolek et al. nor Rai et al. remedy this deficiency. Accordingly, the Applicant submits that claims 14-17 patentably distinguish the combination of Bigham et al., Fijolek et al. and Rai et al.

In addition, the Examiner expresses the view that claim 14 expresses features similar to claims 4, 5, 6 and 9. This is incorrect. The features of claim 14 are different from those of claims 4, 5, 6 and 9. The Applicant submits that claim 14 is patentable over the prior art of record.

Further, claim 15 recites a "user interface providing a control whereby *the subscriber may change the status* of one or more subscriptions of that subscriber from enabled to disabled or from disabled to enabled." As discussed above in relation to claim 5, to the extent that Rai et al. describe an enable/disable flag, this enable/disable flag is *set by a system administrator* and not by a subscriber as recited in claim 15. For this reason, claim 15 (and claim 16 which depends from claim 15) are submitted to further distinguish the combination of Bigham et al., Fijolek et al. and Rai et al.

Based on this reasoning, the Applicant submits that claims 14-17 patentably distinguish the cited references.

Claim 19

The Examiner has expressed the view (on page 3 of the Office Action) that claim 19 has features similar to those of claim 1. On the sole basis of this reasoning, the Examiner has raised Bigham et al. in connection with claim 19 under 35 USC §102.

The Examiner's contention that the features of claim 19 are similar to those of claim 1 is erroneous. Claim 19 recites features which are significantly different from those of claim 1. The Applicant submits that claim 19 is not anticipated by Bigham et al.

Conclusions

Reconsideration and allowance of this application are respectfully requested in view of the foregoing amendments and remarks.

Respectfully submitted,

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